



# Gross State Product

## Overview

Gross State Product (GSP) is the market value of final goods and services produced by the labor and property located in a state. It is the regional counterpart to the national Gross Domestic Product (GDP). Conceptually, GSP is gross output less intermediate inputs. The Bureau of Economic Analysis (BEA) released its estimates of GSP for 2000 in June 2002.

## Estimates of Real and Nominal GSP

GSP is a measure of production, as distinguished from income or spending. It is the sum of the value added by each industry in the state's economy and is expressed in dollars. Changes in nominal (current dollar) GSP from one year to the next result from quantity changes in production and product price changes. BEA attempts to separate these by calculating real (constant dollar) GSP, which theoretically holds prices constant.

Changes in real gross product for an industry reflect changes in the quantity of output, not the price of the product in the market. In order to calculate real GSP, price indices are constructed to account for the inflationary or deflationary prices. There are alternative approaches to the construction of price indices, and these have significant implications for the measurement of prices and quantity over time. When price indices are used to adjust current dollar GSP, the result is real GSP.

BEA has historically used a fixed weight approach to calculate real GSP. Observed relative prices in a base year are assumed constant over time. This introduces what is called "substitution bias", and tends to understate real growth in rapidly growing industries and overstate it in slower growth industries.

An alternative is a chain-type index that reduces substitution bias but introduces additional complexities in interpretation and use.<sup>1</sup> The most recent BEA estimates include current dollar GSP, and real GSP measured in chained 1996 dollars. But because of the problems mentioned earlier, real GSP measured in fixed weight 1996 dollars has not been included in the measurement.

## Current Dollar GSP

Utah's current dollar GSP is estimated by BEA to be \$62.780 billion in 1999 and \$68.549 billion in 2000. This was the sixth highest rate of growth in the nation at 9.2%. The national average for nominal GSP was 7.1%.

## Real GSP

Utah's real GSP (measured in chain-weighted 1996 dollars) has been increasing since 1986. BEA estimates real GSP for Utah to be \$59.784 billion in 1999 and \$63.242 billion in 2000. This was a 5.8% rate of growth ranking Utah 11th fastest in the nation. The national average for real GSP was 4.5%.

## GSP Trends

Utah performed quite well through the 1990s in terms of real GSP. Through this decade, Utah's GSP surpassed that of the nation in all but two years (Utah was slightly lower than the nation in 1997 and tied the national average in 1999). Utah was ranked among the top five fastest growing states four times through the decade.

Utah's industrial composition has evolved over time much like the U.S. In 1965, both the U.S. and Utah were natural resource and manufacturing based economies. Over the last part of the past century in both the U.S. and Utah, agriculture, mining, and manufacturing have decreased, and service and FIRE (finance, insurance, and real estate) have grown.

## Significant Issues

In June 1999, the Bureau of Economic Analysis made several major improvements to the way it estimates GSP. The revisions were centered in the manufacturing and financial service industries. As a result, 1996 manufacturing gross product was revised upward 13% for Utah, and the state as a whole is more productive than previously estimated.

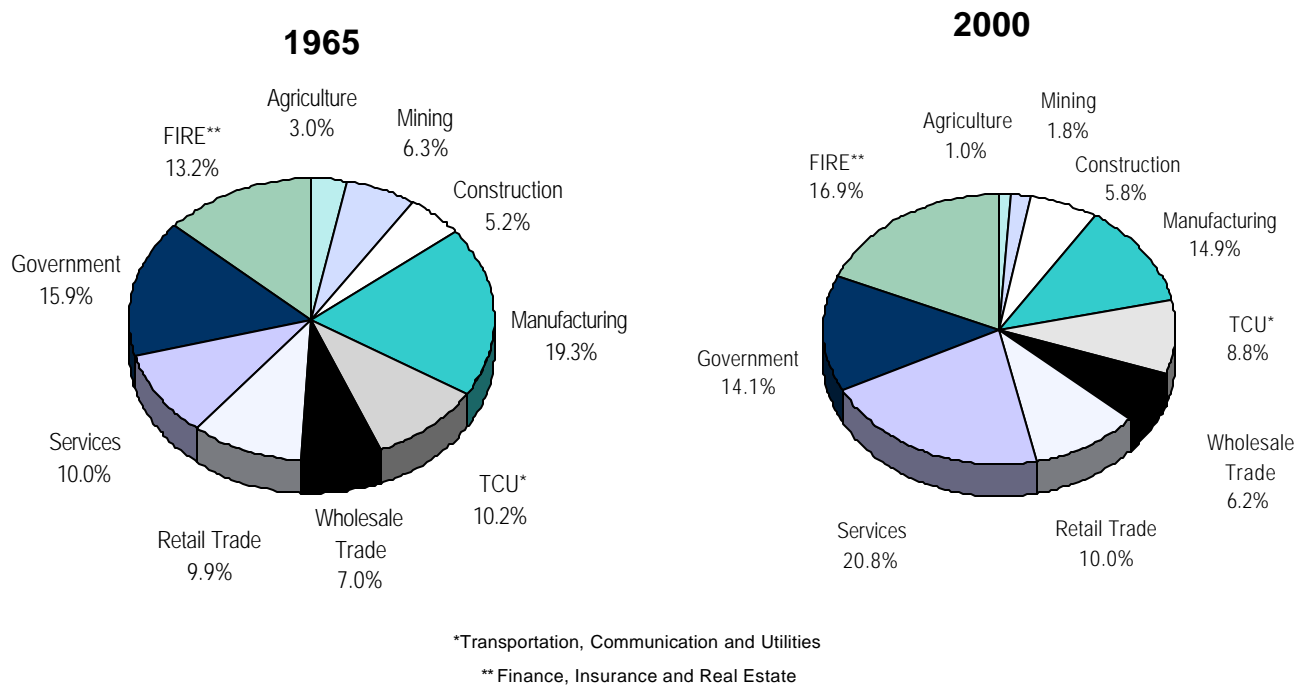
Another important change in GSP has to do with a 1999 reclassification of how GDP, or Gross Domestic Product is calculated. Before the reclassification software purchases were counted as an expense; they are now classified as an investment. Expenses are not included in the figuring of GDP, but investments are. Consequently, software sales, which are growing much faster than the economy as a whole, are now factored into the GDP figures.

## Conclusion

Gross State Product can be used to measure aggregate production in a state. For Utah this aggregate production has shown solid increases for more than ten years. This growth should continue at a somewhat slower pace in the future. GSP can also be utilized to show the change in industry composition over time and as such can prove useful in monitoring the diversity in the economic structure of Utah.

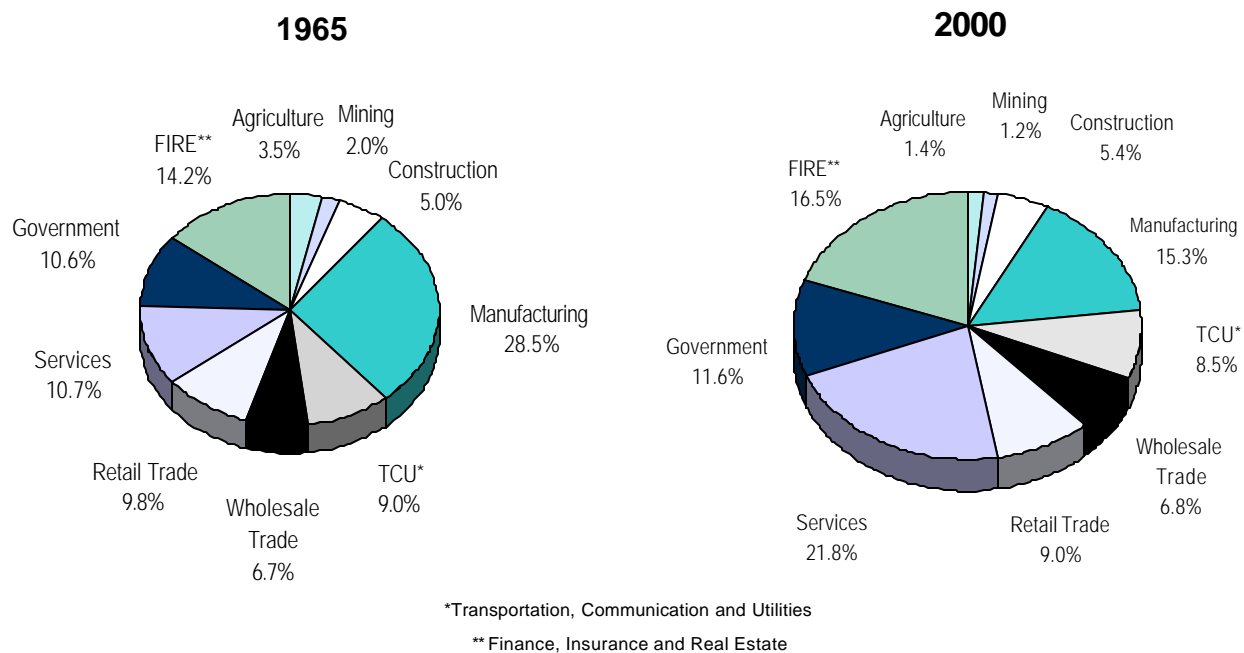
<sup>1</sup> J. Stephen Landefeld and Robert P. Parker, "BEA's Chain Indexes, Times Series, and Measures of Long-Term Economic Growth," *Survey of Current Business* 77 (May 1997): 58-68; and Howard L. Friedenberg and Richard M. Beemiller, "Comprehensive Revision of Gross State Product by Industry, 1977-94," *Survey of Current Business* 77 (June 1997): 15-41.

**Figure 31**  
Utah Gross State Product -- Percent Share by Industry



Source: U.S. Department of Commerce, Bureau of Economic Analysis

**Figure 32**  
U.S. Gross Domestic Product -- Percent Share by Industry



Source: U.S. Department of Commerce, Bureau of Economic Analysis

Table 36

## Utah Gross State Product by Industry (Millions of Current Dollars): Selected Years

Industry	1986	1990	1994	1995	1996	1997	1998	1999	2000
Total Gross State Product	\$24,473	\$31,359	\$42,236	\$46,290	\$51,523	\$55,070	\$59,084	\$62,780	\$68,549
Private Industries	20,234	25,783	35,386	39,006	43,889	46,948	50,591	53,816	58,874
Agriculture, forestry, and fisheries	356	502	533	510	562	603	658	684	713
Farms	298	427	416	378	409	436	460	462	454
Agricultural services, forestry and fisheries	58	75	117	132	153	167	198	222	259
Mining	1,001	1,534	1,256	1,282	1,296	1,162	1,074	1,061	1,208
Metal mining	142	382	448	514	411	278	237	230	265
Coal mining	255	210	286	304	409	324	335	340	335
Oil and Gas	583	858	484	414	423	452	416	403	517
Nonmetallic minerals	22	84	37	49	53	109	86	88	91
Construction	1,271	1,268	2,307	2,701	3,093	3,369	3,800	4,214	4,405
Manufacturing	3,472	4,638	5,915	6,681	8,115	7,753	7,998	8,212	8,559
Durable goods	2,382	3,216	3,826	4,434	5,186	5,037	5,164	5,278	5,502
Lumber and wood	73	146	173	176	186	175	189	216	216
Furniture and fixtures	73	80	126	133	152	143	180	196	201
Stone, clay, and glass products	199	129	190	226	234	281	317	309	315
Primary metals	95	508	616	720	661	792	782	799	892
Fabricated metals	210	294	408	425	478	525	485	560	569
Industrial machinery	749	446	399	570	1,306	710	830	630	622
Electronic equipment	287	400	385	341	348	428	358	492	487
Motor vehicles	47	129	425	639	495	550	599	592	608
Other transportation equipment	500	696	594	586	591	650	582	592	620
Instruments and related	59	199	222	312	362	356	392	368	415
Misc. manufacturing services	91	188	287	305	374	427	449	525	556
Electronic equipment + instruments	345	599	607	653	709	784	750	859	902
Nondurable goods	1,090	1,423	2,089	2,247	2,929	2,716	2,834	2,935	3,057
Food & kindred products	381	384	490	576	597	681	626	689	666
Tobacco products	0	0	0	0	0	0	0	0	0
Textile mill products	3	25	16	20	16	14	19	20	21
Apparel and other textile products	81	66	88	74	79	68	71	57	53
Paper products	62	91	212	228	301	284	259	350	379
Printing and publishing	264	300	430	413	505	588	610	596	621
Chemicals	118	207	351	448	891	540	576	550	614
Petroleum products	137	253	388	346	359	334	456	410	455
Rubber & plastics	43	95	111	138	176	204	214	259	244
Leather products	1	1	2	5	4	4	4	4	4
Transportation, communications, and utilities	2,735	3,123	4,017	4,372	4,588	4,933	5,253	5,505	5,901
Transportation	1,047	1,393	1,884	2,043	2,149	2,406	2,597	2,680	2,746
Railroad transportation	277	216	256	272	266	270	230	238	238
Local and interurban	26	21	28	31	35	41	49	50	58
Trucking and warehousing	436	589	786	846	915	1,012	1,158	1,180	1,232
Water transportation	2	1	1	2	2	4	5	6	7
Transportation by air	233	479	707	784	812	954	1,021	1,058	1,063
Pipelines, except natural gas	29	17	23	20	19	17	20	17	13
Transportation services	45	70	82	89	101	108	113	129	134
Communications	612	689	905	998	1,064	1,080	1,191	1,335	1,519
Electric, gas, and sanitary	1,075	1,042	1,229	1,332	1,375	1,447	1,465	1,491	1,636
Wholesale trade	1,607	1,878	2,637	2,886	3,185	3,398	3,842	3,993	4,254
Retail trade	2,538	2,919	4,403	4,875	5,261	5,816	6,327	6,741	6,881
Finance, insurance, and real estate	3,395	4,111	5,913	6,658	7,951	9,079	9,796	10,427	12,685
Depository institutions	498	845	1,065	1,262	2,113	2,669	2,759	3,075	5,012
Nondepository institution	131	119	309	358	428	577	683	623	680
Security brokers	70	83	117	127	194	212	244	256	292
Insurance carriers	150	227	431	523	555	666	727	736	726
Insurance agents	103	175	282	307	337	349	369	409	449
Real estate	2,341	2,647	3,669	4,047	4,339	4,606	4,954	5,308	5,525
Holding and investment	103	15	41	34	(16)	(1)	60	20	2
Depository + Nondepository	629	964	1,373	1,620	2,541	3,246	3,441	3,698	5,692
Services	3,859	5,809	8,405	9,042	9,838	10,836	11,844	12,978	14,268
Hotels and lodging	190	240	334	357	396	453	501	556	596
Personal services	158	205	304	278	290	316	351	362	388
Business services	690	1,103	1,944	2,131	2,406	2,808	3,085	3,682	4,300
Auto repair and parking	253	315	444	503	543	597	699	764	784
Misc. repair services	99	124	141	156	169	168	192	192	200
Motion pictures	86	70	110	160	174	182	168	181	180
Amusement and recreation	134	185	268	303	348	391	464	517	599
Health services	1,007	1,623	2,266	2,377	2,583	2,749	2,911	3,007	3,196
Legal services	207	284	359	398	369	422	475	484	567
Educational services	224	328	422	434	449	476	506	563	623
Social services	56	99	174	192	220	247	275	298	345
Other services	276	614	879	986	1,088	1,213	1,362	1,463	1,573
Membership organizations	460	591	728	729	765	775	808	868	872
Private households	21	28	34	37	38	39	45	41	44
Business services + Other services	965	1,717	2,822	3,117	3,494	4,021	4,448	5,145	5,873
Government	4,239	5,575	6,849	7,283	7,634	8,122	8,493	8,965	9,675
Federal civilian	1,491	1,771	1,942	2,039	2,009	2,062	2,130	2,274	2,546
Federal military	368	439	473	476	502	503	512	537	578
State and local	2,380	3,365	4,434	4,769	5,123	5,556	5,851	6,154	6,551

Source: U.S. Bureau of Economic Analysis

Table 37

## Utah Real Gross State Product by Industry (Millions of Chained 1996 Dollars): Selected Years

Industry	1986	1990	1994	1995	1996	1997	1998	1999	2000
Total Gross State Product	\$32,385	\$36,301	\$43,952	\$46,965	\$51,523	\$53,999	\$57,011	\$59,784	\$63,242
Private Industries	26,025	29,305	36,676	39,483	43,889	46,111	48,974	51,570	54,661
Agriculture, forestry, and fisheries	446	537	615	575	562	670	756	847	906
Farms	366	452	499	441	409	512	572	660	693
Agricultural services, forestry and fisheries	85	90	121	135	153	161	186	195	216
Mining	919	1,304	1,332	1,286	1,296	1,200	1,309	1,303	1,217
Metal mining	154	323	457	435	411	310	340	374	402
Coal mining	123	134	245	286	409	341	373	433	449
Oil and Gas	697	862	629	530	423	438	510	422	330
Nonmetallic minerals	25	87	38	49	53	104	83	83	89
Construction	1,681	1,482	2,491	2,787	3,093	3,234	3,481	3,664	3,603
Manufacturing	4,042	4,997	5,911	6,691	8,115	7,728	7,928	8,365	8,395
Durable goods	2,626	3,430	3,812	4,410	5,186	5,114	5,332	5,577	5,808
Lumber and wood	119	204	169	173	186	168	181	200	215
Furniture and fixtures	97	93	135	141	152	140	170	181	184
Stone, clay, and glass products	222	150	200	230	234	276	300	279	285
Primary metals	120	513	654	674	661	793	802	911	968
Fabricated metals	255	322	424	443	478	517	460	512	521
Industrial machinery	536	353	352	535	1,306	785	1,025	858	875
Electronic equipment	172	259	285	299	348	470	474	760	880
Motor vehicles	70	187	443	671	495	553	600	571	591
Other transportation equipment	656	871	625	607	591	642	565	562	546
Instruments and related	94	279	255	348	362	331	334	301	311
Misc. manufacturing services	114	217	292	314	374	421	432	499	529
Electronic equipment + instruments	307	541	551	645	709	794	802	977	1,077
Nondurable goods	1,425	1,565	2,099	2,279	2,929	2,619	2,608	2,796	2,627
Food & kindred products	506	437	501	633	597	653	576	608	575
Tobacco products	0	0	0	0	0	0	0	0	0
Textile mill products	3	25	17	21	16	14	18	19	20
Apparel and other textile products	91	71	88	76	79	68	69	53	51
Paper products	88	106	260	202	301	307	261	346	316
Printing and publishing	455	423	478	455	505	557	546	511	510
Chemicals	174	247	368	440	891	538	543	530	591
Petroleum products	126	183	291	321	359	272	367	464	318
Rubber & plastics	42	95	111	141	176	208	209	254	243
Leather products	1	1	3	5	4	4	3	3	4
Transportation, communications, and utilities	2,802	3,292	3,959	4,285	4,588	4,756	4,826	5,136	5,514
Transportation	1,005	1,389	1,829	1,954	2,149	2,270	2,286	2,351	2,451
Railroad transportation	205	198	243	262	266	267	216	231	242
Local and interurban	41	30	31	33	35	41	45	48	56
Trucking and warehousing	442	578	776	823	915	922	969	971	1,033
Water transportation	2	1	1	1	2	4	5	5	6
Transportation by air	228	495	675	729	812	912	915	949	972
Pipelines, except natural gas	29	18	24	18	19	19	21	18	14
Transportation services	62	75	80	88	101	106	112	129	127
Communications	632	722	905	998	1,064	1,065	1,155	1,324	1,534
Electric, gas, and sanitary	1,209	1,196	1,224	1,334	1,375	1,420	1,386	1,472	1,550
Wholesale trade	1,935	1,972	2,650	2,785	3,185	3,502	4,192	4,341	4,470
Retail trade	3,233	3,217	4,379	4,834	5,261	5,853	6,404	6,812	6,973
Finance, insurance, and real estate	5,071	5,148	6,377	6,899	7,951	8,716	9,160	9,567	11,316
Depository institutions	873	1,203	1,209	1,346	2,113	2,397	2,358	2,532	3,941
Nondepository institution	196	134	314	350	428	620	741	703	770
Security brokers	63	82	114	125	194	225	276	387	589
Insurance carriers	399	394	528	565	555	618	653	629	568
Insurance agents	242	286	321	324	337	333	339	368	401
Real estate	3,131	3,036	3,837	4,145	4,339	4,524	4,769	4,980	5,040
Holding and investment	203	28	59	42	(16)	(1)	40	12	1
Depository + Nondepository	1,079	1,325	1,525	1,699	2,541	3,008	3,069	3,222	4,769
Services	5,982	7,334	8,994	9,350	9,838	10,449	10,978	11,585	12,230
Hotels and lodging	279	286	344	362	396	416	432	448	464
Personal services	235	251	318	286	290	305	331	332	343
Business services	902	1,305	2,099	2,216	2,406	2,727	2,882	3,314	3,692
Auto repair and parking	377	387	465	509	543	572	648	699	699
Misc. repair services	162	179	156	169	169	159	170	154	147
Motion pictures	126	84	119	169	174	178	163	166	155
Amusement and recreation	196	228	286	314	348	379	431	471	515
Health services	1,827	2,185	2,399	2,438	2,583	2,675	2,732	2,740	2,837
Legal services	358	373	386	414	369	404	437	434	491
Educational services	358	418	455	456	449	456	458	487	513
Social services	88	125	186	200	220	237	250	259	283
Other services	432	787	945	1,013	1,088	1,168	1,277	1,329	1,384
Membership organizations	636	716	801	764	765	736	728	720	681
Private households	28	34	37	39	38	38	43	38	39
Business services + Other services	1,343	2,086	3,044	3,229	3,494	3,895	4,159	4,644	5,078
Government	6,425	7,054	7,285	7,487	7,634	7,888	8,042	8,226	8,599
Federal civilian	2,424	2,391	2,117	2,098	2,009	2,010	2,039	2,105	2,296
Federal military	492	534	512	505	502	493	495	503	522
State and local	3,546	4,147	4,660	4,884	5,123	5,385	5,507	5,618	5,783

Note: Real GSP data by industry for Utah is not available from the Bureau of Economic Analysis before 1986.

Source: U.S. Bureau of Economic Analysis